Work Order ID 70225

Tuesday, May 31, 2011 3:30:05 PM

Item ID: D205-634-041 **Accept** **Setup Start** **Stop**

Revision ID:

Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Start Qty:** 1.00 **Cust Item ID:**

Required Date: 6/15/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** M **Date:** 11-05-31 **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	**Revision Nbr**								
D2580-041	Rev.D DEO-D1								

Ph →

100 — DOCUMENT CONTROL — 0.00

DC — Document Control

Memo — 0.00

Photocopy D205-634 bluefile & type labels per PPP D205-634-041 ~~CHG004~~ 002

N/A

110 — BENDING MACHINE - SKIDTUBES — 0.00

CNC Bend 1 — CNC Delta 100 Bender

Memo — 0.00

1-Bend as per program D2580.C on CNC Bender and Folio 16

2-Cut tubes as per Dwg. D2580

3- scribe batch# in aft end of tube

11-6-16

Dart Aerospace Ltd

W/O: 70225		WORK ORDER CHANGES					
DATE	**STEP**	Perm. chg **PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector
11/6/21	# 130/140	Return all w/o's FOR D205-634-041 Back to welded + bolt SPARES	CE	11.07.11			11/06/21

Part No: D205-634-041 **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

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QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
120		0.00							
Skidtubes	**Memo**	0.00				1			DL 11/06/20
Skidtubes	1- Deburr ends and remove bending marks 2- Prepare tube for swaging as per QSI 002	3							
130	QC5- Inspect part completeness to step on W/O	0.00				1	0		BE 11/07/21
QC	**Memo**	0.00							
Quality Control									

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
140		0.00							
Skidtubes									
Skidtubes	**Memo**	0.00							
	1-Weld step D2576 as per Dwg. D2580 and QSI 004 A/R□□□ Aluminum Rod M117456								BE 11/06/21
	2-Grind welds on step as per Dwg D2580								DL 11/06/21
	3-Insert D4202-1 spacer, swage as per QSI002 and trim/ grind flush per QSI002 and dwg. Hold x-bolt with DT9701 Use tube expander 1/2 x17G to start expantion and finish with 1/2 x 18G to achieve dwg dimention.								WELDED A/R M117456 BE 11/06/21
	4-Drill holes for wearplates using DT 8217 & DT8937 Open holes to 19/64", adjust stopper not to hit web.Deburr								3 wh 11/06/21
	6-Drill pilot holes for aft cap using DT 8215Open holes to 0.208". Deburr								
	7-Drill pilot holes for Tow ring using DT8091, open to .640"and Deburr								BE 11/06/21
150	QC10- Inspect visual per QSI004- ground welds	0.00							
QC									DL 11/06/21
Quality Control	**Memo**	0.00							

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

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Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

Stop

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
160 QC Quality Control	QC5- Inspect part completeness to step on W/O **Memo**	0.00 0.00							
170 HandFinish Hand Finishing	Pressure Wash per QSI005 4.3 **Memo** Re-alodine tube as per QSI 005 section 4.1.2.1 do not acid etch and leave fwd cap out of solution.	0.00 0.00							
180 Powdercoat Powder Coating	White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum **Memo** START TIME: 8:30 OVEN TEMPERATURE: 320 oF FINISH TIME: 9:00	0.00 0.00							

M116464

11/06/21

1X Ø M 11/06/22

1X Ø M 11/06/23

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

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Revision ID:

Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Start Qty:** 1.00 **Cust Item ID:**

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Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
190	QC3- Inspect Part Finish	0.00				1	0	M	11/06/25
QC	**Memo**	0.00							
Quality Control									

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

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QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200		0.00							
HandFinish		0.00				1	0		11/06/11
Hand Finishing	**Memo**								

1-Install inserts & wearplates & Gaskets as per Dwg. D2580. Use a drop of Sikaflex on insert holes before installing wearplates
A/R □□□ Sikaflex-291 □N1175116
Sikaflex expire date: 01/12

2-Coat D2594-3 O' rings with Petroleum Jelly and install on D2594-1 plugs as per Dwg D2580

3-Inspect for foreign object per QSI 024

4-Install 2855 Aft Cap as per Dwg D2580 and seal Fwd Step & Aft Cap with Sikaflex. Clean excess adhesive
A/R □ □□ Sikaflex-291 □N1175116
Sikaflex expire date: 01/12

5-Wing Walk as per Dwg D2580 and QSI 005 4.4
Batch: N1179863

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W/O:		WORK ORDER CHANGES					
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Required Date: 6/15/2011 **Req'd Qty:** 1.00 **Customer:**

Reference:

Run Start **Stop**

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____

QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
210	QC5- Inspect part completeness to step on W/O	0.00							
QC	**Memo**	0.00							
Quality Control	Inspect Aft Cap, Fwd Step and Wing Walk of work to Current Step Inspect for Foreign objects per QSI 024								
220		0.00							
Packaging	Packaging								
Packaging	**Memo**	0.00							
	Identify and pack for shipping as per PPPD205-634-041 Location:_____ PPP Rev:_____								
230	QC21- Final Inspection - Work Order Release	0.00							
QC	**Memo**	0.00							
Quality Control									

11-07-11

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W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

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NOTE: Date & initial all entries

Picklist Print

Tuesday, May 31, 2011 3:30:11 PM

Work Order ID: 70225

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Required Date:** 6/15/2011

Start Qty: 1.00 **Required Qty:** 1.00

Comments: IPP Rev:N 02.08.28 FP was QC5 in Step 27; Added QC5 to Step 30
KJ IPP Rev P 10.02.19
per PAR09-043 EC verified by:DD
IPP Rev. O 06.02.28 Added paperwork EC
IPP Rev:P 07-07-09 SS Wearplates & Gaskets JLM IPP Rev:Q
10.12.01 as per chg003 DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
~~S4202-1~~ D2579		Manufactured	No			140	Each	443.0000	20	20			
Spacer													
				Location			**Loc Qty**	**Loc Code**					
				LG002			443						
					66929		106						
					67129		196						
					67308		1						
					67430		140						
D2580-1		Manufactured	No			110	Each	4.0000	1	1			
205 Skidtube bent detail													
				Location			**Loc Qty**	**Loc Code**					
				LG	69731		4						
					69212		2						
					69213		2						
D2576-3		Manufactured	No			140	Each	54.0000	1	1			
Step (maching detail)													
				Location			**Loc Qty**	**Loc Code**					
				LG			54						
					66156		54						

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W/O:		WORK ORDER CHANGES					
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Picklist Print

Tuesday, May 31, 2011 3:30:12 PM

Work Order ID: 70225

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Required Date:** 6/15/2011

Start Qty: 1.00 **Required Qty:** 1.00

D2855	Manufactured	No		200	Each	53.0000	1	1

Cap

YI 11/06/23

Location	Loc Qty	Loc Code	
FP007	53		
5379J	16		YI
65519	2		
65569	35		

AN3-5A	Purchased	No		200	Each	1,156.000	2	2

Bolt

YD 11/06/23

Location	Loc Qty	Loc Code	
ST350	1156		YZ
11537J	356		
117423	800		

AN960JD10L	NAS1149D0332J	Purchased	No	200	Each	0.0000	2	2

Washer

M117291 YZ YL 11/06/23

ALS7-1032-130	Purchased	No		200	Each	1,981.000	50	50

Insert

YL 11/06/23

Location	Loc Qty	Loc Code	
ST281	14		
117331	14		
ST282	1967		
116800	7		
117717	1960		X50

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Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Required Date:** 6/15/2011

Start Qty: 1.00 **Required Qty:** 1.00

AN3C4A		Purchased	No		200	Each	2,537.000	50	50
BOLT									JL 11/06/23

Location	Loc Qty	Loc Code	
ST350	2537		
117094	955		
117313	82		
117688	800		
117795	500		
117872	200		X50

AN960C10L	NAS1149C0332 R	Purchased	No		200	Each	0.0000	50	50
washer									MU18078 (150) JL 11/06/23
D3566-13		Manufactured	No		200	Each	44.0000	1	1
Gasket									JL 11/06/23

Location	Loc Qty	Loc Code	
FP	26		
69281	26		
FP014	18		
68341	18		X1

D3566-5		Manufactured	No		200	Each	34.0000	1	1
Gasket									JL 11/06/23

Location	Loc Qty	Loc Code	
FP015	34		
67589	1		
68961	33		X1

Dart Aerospace Ltd

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Tuesday, May 31, 2011 3:30:13 PM

Work Order ID: 70225

Parent Item: D205-634-041

Parent Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Required Date:** 6/15/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3566-1	Manufactured	No		200	Each	46.0000	2	2
Gasket								JL 11/06/23

Location	Loc Qty	Loc Code	
FP015	46		
68924	24		
69279	22		V2

D3564-11	Manufactured	No		200	Each	12.0000	1	1
Wearshoe								JL 11/06/23

Location	Loc Qty	Loc Code	
FP019	12		
69119	12		X1

D3564-13	Manufactured	No		200	Each	30.0000	1	1
Wearshoe								JL 11/06/23

Location	Loc Qty	Loc Code	
FP016	18		
69280	18		
FP017	12		
~~66805~~	12		X1

D3564-9	Manufactured	No		200	Each	15.0000	1	1
Wearshoe								JL 11/06/23

Location	Loc Qty	Loc Code	
FP019	15		
67590	4		
68349	11		X1

Dart Aerospace Ltd

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Parent Item Name: Replacement Skidtube

Start Date: 5/31/2011 **Required Date:** 6/15/2011

Start Qty: 1.00 **Required Qty:** 1.00

D3564-5	Manufactured	No		200	Each	20.0000	1	1

Wearshoe

Location	Loc Qty	Loc Code	
FG	2		
34806	2		
FP019	18		
68960	18		x 1

D2594-3	Manufactured	No		200	Each	980.0000	16	16

O-Ring, 205 Skidtube

Location	Loc Qty	Loc Code	
FP-A	980		
65518	54		
66952	926		x16

D2594-1	Manufactured	No		200	Each	425.0000	16	16

Plug, 205 Skidtube

Location	Loc Qty	Loc Code	
FP-A	425		
42807	28		x10
66932	106		
67441	7		
68943	284		x

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
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DART

DESIGN	DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED	DRAWING NO. D2580	REV. D SHEET 1 OF 3
DATE 07.02.27		TITLE 205 SKIDTUBE ASSEMBLY	SCALE NTS

A	96.09.16	NEW ISSUE
B	96.12.02	AS MANUFACTURED
C	98.08.26	REDRAWN, INCLUDED DEO 9094/9097
D	07.02.27	CHANGE TO SS WEARPLATES AND GASKETS, INCLUDE DEO 9124/9183

RELEASED
07.06.28

DEO ATTACHED

QTY -041	QTY -045	Part Number	Description
X		**D2580-041**	**SKIDTUBE ASSEMBLY**
	X	**D2580-045**	**SKIDTUBE ASSEMBLY**
1	1	D2500-1-190	EXTRUSION
1	1	D2576-3	STEP
20	24	D2579	CROSS BOLT SPACER
16	16	D2594-1	PLUG
16	16	D2594-3	O-RING
1	1	D2596	205 WEB
1	1	D2855	AFT CAP
1	1	D3564-5	WEARSHOE
1	1	D3564-9	WEARSHOE
1	1	D3564-11	WEARSHOE
1	1	D3564-13	WEARSHOE
2	2	D3566-1	GASKET
1	1	D3566-5	GASKET
1	1	D3566-13	GASKET
50	50	ALS7-1032-130 or AKS7-1032-130 or AKS4-1032-130 or AELS-1032-130	INSERT
50	50	AN3C4A	BOLT
2	2	AN3-5A	BOLT
50	50	AN960C10L	WASHER
2	2	AN960JD10L	WASHER

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ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 10275

11-05-31

GENERAL NOTES:

1) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
2) ALL DIMENSIONS ARE IN INCHES
3) INSERT D2596 WEB TO LOCATION SHOWN OFF AFT END OF SKIDTUBE AND BOND WEB INTO OUTER TUBE WITH NON-STRUCTURAL SIKAFLEX-241 ADHESIVE PER DART QSI 015 BEFORE BENDING. ENSURE HOLES LINE-UP.
4) BEND AS A SMOOTH RADIUS STARTING WITH A MAXIMUM CENTERLINE RADIUS OF 60 AND ENDING WITH A MINIMUM RADIUS OF 30. A MAXIMUM REDUCTION OF 0.200 IN DIAMETER IS ALLOWABLE IN THE BENT PORTION OF THE TUBE.
5) USE DART DRILL TEMPLATE TD2577-205 TO LOCATE AND DRILL Ø0.297 HOLES FOR WEARSHOE INSERTS. INSTALL ALS7-1032-130 PER SECTION D-D (50 PLACES) AFTER FINISH. INSTALL AN3C4A BOLTS AND AN960C10L WASHERS WITH SIKAFLEX-241/-291.
6) WELDING TO BE DONE PER DART QSI 004.
7) FINISH:
 SEE NOTES ON
 PAGE 2 FOR D2580-041 AND
 PAGE 3 FOR D2580-045
8) INSERT D2594-1 PLUG C/W D2594-3 O-RING IN HOLES MARKED 'P' (BOTH SIDES OF TUBE) AFTER FINISH (16 PLACES).

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

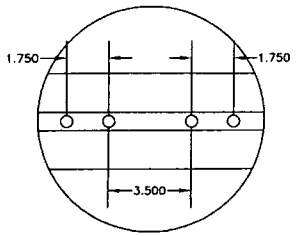
Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

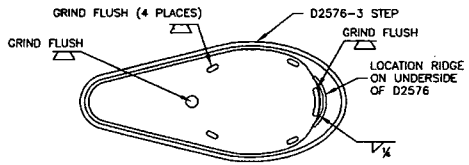
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

DETAIL A
SCALE 5:24



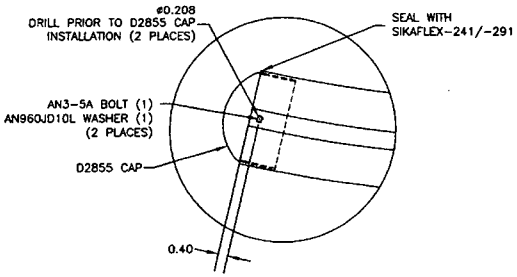
DETAIL B
SCALE 5:24



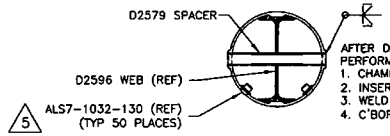
RELEASED
07.06.28

DEO ATTACHED

DETAIL C
SCALE 5:24

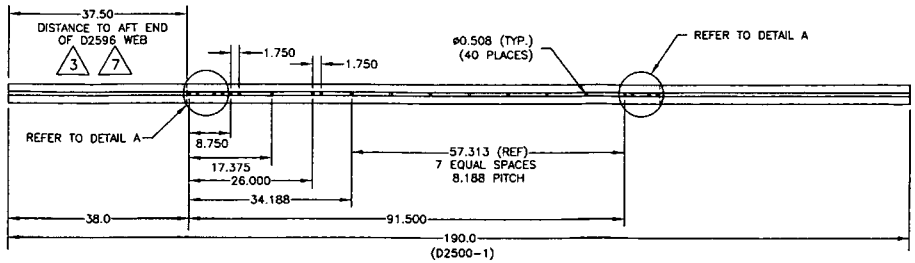


SECTION D-D
SCALE 5:24

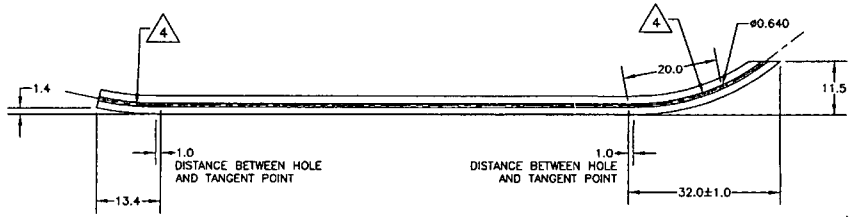


AFTER DRILLING AND BENDING ASSEMBLY PERFORM THE FOLLOWING FOR ø0.508 HOLES ONLY:
1. CHAMFER HOLE 0.050 X 45°
2. INSERT D2579 SPACER (20 PLACES)
3. WELD INTO PLACE AND GRIND FLUSH
4. C'BORE D2579 SPACER TO ø0.437 X 1.00 DEEP

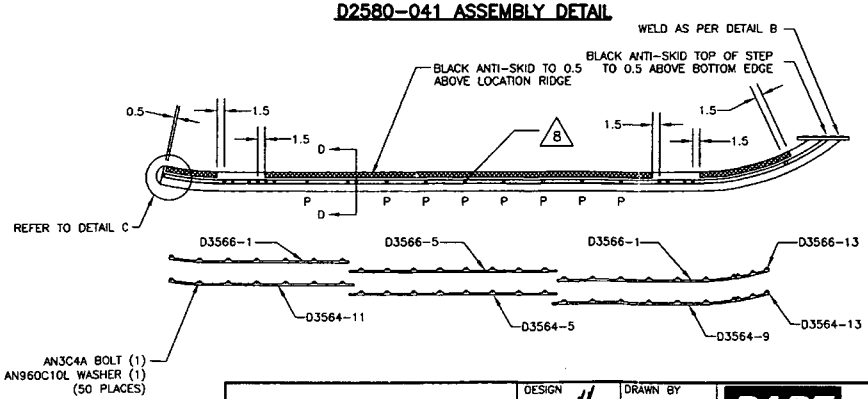
D2580-1 DRILLING DETAIL



D2580-1 BENDING AND CUTTING DETAIL



D2580-041 ASSEMBLY DETAIL



c/o 10225

D2580-041 NOTES

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB
POWDER COAT ASSEMBLY GLOSS WHITE (REF. 4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

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DESIGN	DRAWN BY	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA
CHECKED	APPROVED	DRAWING NO. D2580 — REV. D
DATE 07.02.27		SHEET 2 OF 3
		TITLE 205 SKIDTUBE ASSEMBLY — SCALE 1:24

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

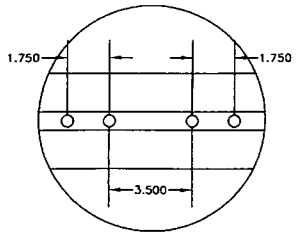
Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

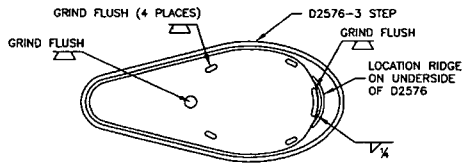
DETAIL E
SCALE 5:24



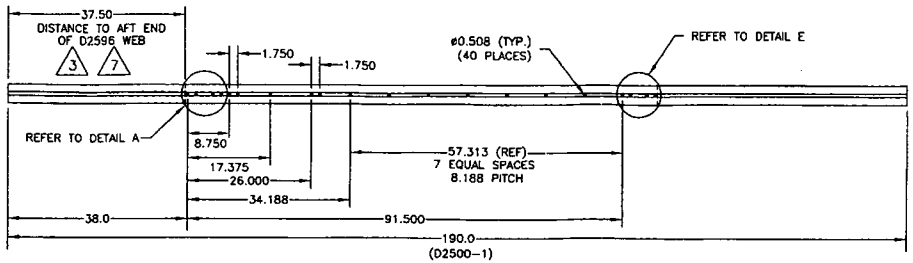
RELEASED
07.06.28

DEO ATTACHED

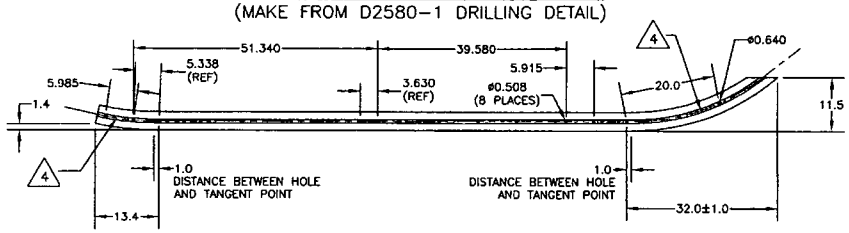
DETAIL F
SCALE 5:24



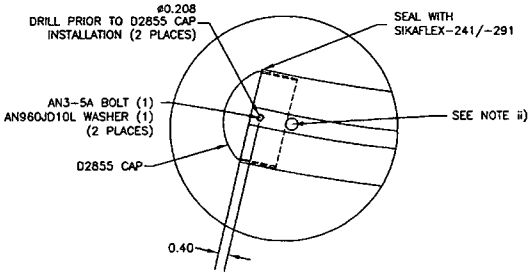
D2580-1 DRILLING DETAIL



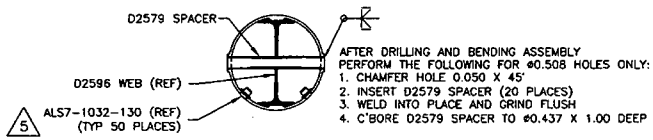
D2580-5 BENDING AND CUTTING DETAIL
(MAKE FROM D2580-1 DRILLING DETAIL)



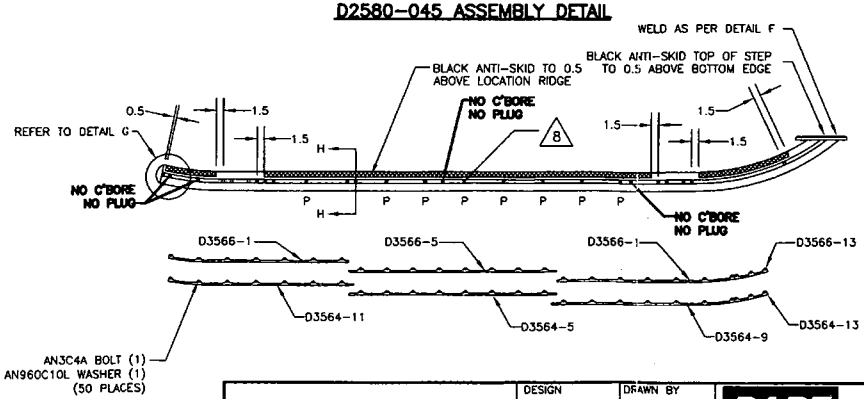
DETAIL G
SCALE 5:24



SECTION H-H
SCALE 5:24



D2580-045 ASSEMBLY DETAIL



C

D2580-045 NOTES

i) FINISH: ACID ETCH, ALODINE PER DART QSI 005 4.1 PRIOR TO INSERTING D2596 WEB POWDER COAT ENTIRE ASSEMBLY GREEN (REF. 4.3.5.8) PER DART QSI 005 4.3 BLACK ANTI-SKID PAINT AS INDICATED PER DART QSI 005 4.4

ii) IT IS ACCEPTABLE TO GRIND A RELIEF IN THE D2855 AFT CAP TO PREVENT INTERFERENCE WITH THE SPACER AT THIS LOCATION

w/o 10825

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DESIGN	DRAWN BY	DART AEROSPACE LTD. HAWKESBURY, ONTARIO, CANADA	
RH	RH		
CHECKED	APPROVED	DRAWING NO.	REV. D
		D2580	SHEET 3 OF 3
DATE		TITLE	SCALE
07.02.27		205 SKIDTUBE ASSEMBLY	1:24

Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	**STEP**	**Description of NC** Section A	**Corrective Action** Section B			**Verification** Section C	**Approval** Chief Eng	**Approval** QC Inspector
			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

DRAWING NO.	TITLE	REV. D	DART AEROSPACE LTD	D.E.O. NO.	SHEET NO.	SCALE
D2580	205 SKIDTUBE ASSEMBLY		ENGINEERING ORDER	D2580-D-1	SHEET 1 OF 1	NTS
DRAWN	CHECKED		MFG. APPR.	APPROVED	DE APPR.	
DATE 10.09.22	DATE 10-11-04		DATE 10.11.04	DATE 10/11/04	DATE 10-11-04	

PURPOSE:
CHANGE ALL WELDED CROSSBOLT SPACERS TO SWAGED SPACERS

CHANGE:
PARTS LIST IS AMENDED AS FOLLOWS:

WAS

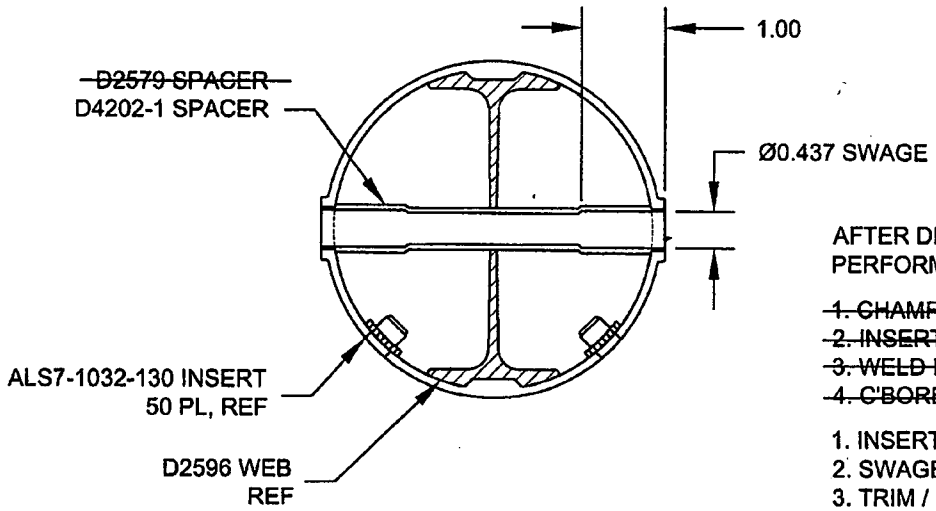
QTY -041	QTY -045	PART NUMBER	DESCRIPTION
20	24	D2579	CROSS BOLT SPACER

IS

20	24	D4202-1	SPACER

w/070225

SECTION D-D & SECTION H-H ARE AMENDED AS FOLLOWS:



RELEASED
2010 -11- 18

AFTER DRILLING AND BENDING ASSEMBLY
PERFORM THE FOLLOWING FOR Ø0.508 HOLES ONLY:

~~1. CHAMFER HOLE 0.050 X 45°~~
~~2. INSERT D2579 SPACER (20 PLACES)~~
~~3. WELD INTO PLACE AND GRIND FLUSH~~
~~4. C'BORE D2579 SPACER TO Ø0.437 X 1.00 DEEP~~

1. INSERT D4202-1 SPACER, 20 PL (-041) OR 24 PL (-045)
2. SWAGE TO Ø0.437 X 1.00 DEEP PER QSI 002
3. TRIM / GRIND FLUSH PER QSI 002

SECTION D-D
NOT TO SCALE

SECTION H-H
NOT TO SCALE

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Dart Aerospace Ltd

W/O:		WORK ORDER CHANGES					
DATE	**STEP**	**PROCEDURE CHANGE**	**By**	**Date**	**Qty**	**Approval** Chief Eng / Prod Mgr	**Approval** QC Inspector

Part No: _____ **PAR #:** _____ **Fault Category:** _____ **NCR:** Yes No **DQA:** _____ **Date:** _____

Resolution: _____ **Disposition:** _____ **QA: N/C Closed:** _____ **Date:** _____

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			Initial Chief Eng	**Action Description** Chief Eng	**Sign & Date**			

NOTE: Date & initial all entries

Linda Lacelle

From: dshepherd@dartaero.com
Sent: April 18, 2011 11:36 AM
To: Linda Lacelle; Mike Petsche
Cc: Bill Beckett; 'Chris Provencal'; 'Eric Charbonneau'
Subject: Re: Alum. Solution Anneal - swaging

Makes sense to me ... We don't want to get caught short ... Make sure that if we do this, they are ident the old CHG number.

David

Sent from my BlackBerry device on the Rogers Wireless Network

From: "Linda Lacelle" <llacelle@dartaero.com>
Date: Mon, 18 Apr 2011 11:21:10 -0400
To: 'Mike Petsche'<mpetsche@dartaero.com>; <dshepherd@dartaero.com>
Cc: 'Bill Beckett'<bbeckett@dartaero.com>; 'Chris Provencal'<cprovencal@dartaero.com>; 'Eric Charbonneau'<echarbonneau@dartaero.com>
Subject: RE: Alum. Solution Anneal - swaging

I am ready to weld some up, I don't want to get into trouble with L/T's on these, any objections??
LL

From: Mike Petsche [mailto:mpetsche@dartaero.com]
Sent: April 18, 2011 10:42 AM
To: 'Linda Lacelle'; dshepherd@dartaero.com
Cc: 'Bill Beckett'; 'Chris Provencal'; 'Eric Charbonneau'
Subject: RE: Alum. Solution Anneal - swaging

CC3 CHG Dash

Well I'm not sure what to say.

It's my understanding that the swaging will still make sense even with the extra hoops we need to jump throu

If there is still uncertainty on the delivery of the material, we CAN still weld them if we need to.

And while this might be less than "world class", couldn't we take some of our tubing that we have in stock and with the welder to knock down the temper a little? Ground clamp on one end, torch on the other.....BZZZZZZ

(I'm only sort of joking....because I bet it would work)

From: Linda Lacelle [mailto:llacelle@dartaero.com]
Sent: April 18, 2011 9:44 AM
To: dshepherd@dartaero.com; 'Mike Petsche'
Cc: Bill Beckett; Chris Provencal; Eric Charbonneau
Subject: RE: Alum. Solution Anneal - swaging
Importance: High

NO. 251

AWS D17.1.2001
QUALIFICATION TEST RECORD

Name: Barclay Elliott
Job number: ~~68708~~ 68708
Part number: D205-634-041
Description: D205
Welding Process: Tig[X] Mig[]
Base materiel: Aluminum
Current: AC[X] DC[]

TEST REQUIREMENTS AND RESULTS

Visual:	pass[X]	fail[]
Penetration:	pass[X]	fail[]

UNACCEPTABLE

Cracks:	pass[X]	fail[]
Undercut:	pass[X]	fail[]
Pin holes:	pass[X]	fail[]
Overlap (cold lap)	pass[X]	fail[]
Porosity (surface):	pass[X]	fail[]
Coloration:	pass[X]	fail[]

Qualifier Katy Ewers **Date of Test Coupon** 11-05-05

Welder Barclay Elliott **Date of Test Coupon** 11-05-05

The above named individual is qualified in accordance with AWS D17.1.2001 to weld